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No. 4.

CONTRIBUTED ARTICLES

Proper Size of Brood-Chamber—Swarm or Parent Colony for Honey?

BY G. M. DOOLITTLE.

A subscriber to the American Bee Journal wishes me to tell through its columns how many standard Langstroth frames I would use in a hive, when working exclusively for comb honey; and also which will do best at producing comb honey, the prime swarm or the old colony, where but one

swarm is allowed from each old colony in the spring. As these are reasonable questions, I will try to answer as best I can.

Regarding the first, I would say that I would use just as many standard Langstroth frames in the brood-chamber, when working for comb honey, as the queen had occupied with brood when the honey harvest commenced in earnest from clover, basswood, or whatever else gave, in my locality, a sufficient flow of nectar so the bees could make a business of storing surplus honey, according as any one honey tree or plant abounded in the locality where I resided. For this reason I would use a 10-frame Langstroth hive; that is, I would use a hive that would hold 10 Langstroth frames, and have it so arranged that I could reduce it to only a four-frame hive, should I find any queen at the commencement of the honey harvest that would not keep more combs than that number occupied with brood; or a five, six, seven, eight, or nine frame hive, just in accord with the prolificness of the queen.

There are a very few queens which will fill 10 Langstroth frame with brood, when they are laying at their best, hence



Official Bird's-Eye View of the Trans-Mississippi and International Exposition, Omaha, Nebr.

we wish a 10-frame hive for these queens; and as we do not know just which will have such a queen year after year, as queens change in prolificness so often, we had better make all our hives to hold 10 frames. Far more of our queens will keep only nine frames filled with brood, and for this reason we wish some way of reducing the 10-frame hive to a 9-frame, when it is required. When the hanging frame is used I know of no better way of doing this than by using an inch board, the same being a little smaller than the inside of the hive below the rabbets, and having a top-bar of a frame nailed to one side of it, so it will hang in the hive the same as a frame.

When we find, at the beginning of the honey harvest, a queen capable of keeping only nine frames filled with brood, and we have 10-frames in the hive, take out the one the queen does not occupy, and slip in the prepared board to take the place of it. But, as a rule, we shall find by far the larger part of our queens will occupy only eight frames with brood, and in this case we will use one of the boards on each side of the hive, instead of both on one side, as this brings the top of the hive in better shape for the bees to work to the best advantage in the sections.

A few of our queens may not come up to this average as to prolificness, consequently we wish to reduce the size of the hive still further in such cases, and for this further reduction I prefer to use two frames spiked together, having $\frac{3}{4}$ lumber nailed on each side, thus making what is known as a "dummy." With these boards and dummies we can make the hive so it will suit the prolificness of any queen at the commencement of any honey harvest, and thus secure the best results in comb honey.

If we allow the bees to make a start at storing honey of any amount in the brood-chamber, they will be loth to enter the sections, and instead of doing so they are apt to keep on storing in the brood-chamber, crowding the queen more and more in her brood space, till at the end of the season we will have very little honey in the sections and few bees in the hive for winter. If there is any one thing which tends toward poor success in the production of section honey more than another, I believe the having much empty comb in the brood-chamber at the beginning of the honey harvest is the worst.

Strive to have every queen do her level best at brood-rearing for a month or six weeks before the expected harvest, so that the maximum number of bees shall come with the beginning of the harvest, then take away all comb unoccupied with brood, putting on the sections, and we are as near perfection, according to my views, as we are likely to get; and should the season be a good one, we shall have no cause to complain at the results secured.

But I think I hear some one asking, "Why not kill all the unprolific queens we may happen to have, before the honey harvest?" Should we do this, we shall throw the colony into an abnormal condition which will work against our securing as good results from that colony as we would have secured had we left the poor queen till the end of the harvest and then replaced her. By "abnormal condition," I mean this:

If a young, prolific queen is given near or at the commencement of the honey harvest, she will not be content with the number of combs which the old one occupied, and if confined to these, swarming during the middle of the harvest will be the result, which would blight our prospect for honey of any amount from any colony which gets the swarming-fever at this time; and should we give this queen all the room she needed, say eight or nine frames, it would either result in the crowding her down with honey, as spoken of above, or in their using the most of the honey brought in from the fields in feeding the large quantity of brood she would bring about, which brood would hatch so late that the bees from it would become consumers instead of producers, and thus we would nearly or entirely lose the use of that colony during the season.

In regard to which will produce the most comb honey, the swarm or the parent colony, that depends upon when the swarm issues. If it comes 10 days or more in advance of the harvest, and the old colony is not allowed to swarm again, with proper management the old colony will give the best results. On the other hand, if the swarm comes at the commencement of, or during the harvest, then every advantage should be turned to the account of the swarm, for the old colony would do little more than to secure honey enough for winter under the best of management, while the swarm can be made to give good results by throwing the main force of bees to it.

Onondaga Co., N. Y.



Every Present Subscriber of the Bee Journal should be an agent for it, and get all others possible to subscribe for it. See offers on page 11.

Ontario Foul Brood Inspector's 1897 Report.

BY WM. M'EVROY.

During 1897 I visited bee-yards in the counties of Welland, Lincoln, Wentworth, Brant, Norfolk, Kent, Huron, Grey, Perth, Oxford, Waterloo, Cardwell, York, Ontario and Simcoe. I examined 66 apiaries, and found foul brood in 34 of them. I found several of the largest and best apiaries in the Province very badly diseased through the bees robbing foul-broody colonies that had been brought from other parts of Ontario, and placed near them. Some of the owners of these fine apiaries had invested from \$500 to \$800 in bees, one man over \$1,000, and to get their good apiaries badly diseased through foul-broody colonies being shipped into their localities, was pretty hard to bear with, but I am satisfied that none of the parties that either bought or sold the diseased colonies that had been shipped knew that they had foul brood at the time of sale.

I also found many colonies very badly diseased through the owners using old combs that they got from parties that had lost all of their bees with foul brood. None of these men knew that the old combs were diseased, or were able to tell the stain-mark of old foul brood on the lower side of the cells. Comb foundation is a very safe and very valuable thing to use, and those that need combs should use plenty of it, and not run any risk by using the old combs from apiaries where all the bees had died.

When going through, examining every colony in a diseased apiary, I mark them according to the condition I found them in, putting one pencil cross on the front of one hive, two crosses on another, and three on all very bad ones. After we get through examining all the colonies, we know the true condition of things by the number of crosses on the front of the hives. Some of the colonies I advised to be doubled the same evening, and the combs made into wax, and when the work was done in the honey season I had considerable increase made from those least diseased, and, as a rule, ended the season with more colonies than I began with, and all in grand condition.

At our annual meeting that was held in London, in 1892, I said that my method of curing diseased apiaries of foul brood would in the near future be followed by the bee-keepers of every land. I am very much pleased to say that my method of treatment is not only followed by the bee-keepers of Canada and the United States, but is "all the go" in far-off Australia, and for this nice state of affairs I thank the editors of all the bee-periodicals. Everywhere that I went the past season to inspect the apiaries, I found every bee-keeper pleased to have me examine his colonies, and for the very nice way that I was treated by every person I return to them my most heartfelt thanks.

I burned two colonies in one apiary, two in another, two in a third place, and a quantity of diseased combs, and three in a fourth locality. The owners helped to burn some of the diseased colonies, and the other bee-keepers were consenting to have the few worthless colonies burned. I am also pleased with the way all the other bee-keepers took hold, and cured their diseased colonies, that had foul brood in the summer.

While examining their colonies to see if the bees had enough honey for winter, some people found things not right and I found it to be pure foul brood. I explained how to cure it in the most profitable way, and put everything in order.

My time, carefare and livery-hire, was \$525.90

Ontario, Canada, Dec. 6, 1897.



No. 4—Recollections of an Old Bee-Keeper.

BY DR. E. GALLUP.

(Continued from page 36.)

Now I propose to tell of things I learned from Mr. Wellhausen. His queen-cage was a hollow reed, or milkweed, about the size of my little finger. At one end he inserted a common plug, and at the other end he used a long, sharp plug of wood. In one side he cut out a slit nearly $\frac{3}{16}$ of an inch wide, and nearly as long as the hollow. This was for the queen and workers to communicate through. When all was ready he would raise or tip up the hive, smoke back the bees, and stick the long, sharp plug right into the comb. For introducing, instead of the lower plug he would insert a piece of comb and honey, and then take a long, fine needle and pierce through the center of this comb, then the bees would cut all out, and liberate the queen on the most approved plan now used, only we use candy.

For a queen-cell protector he used a short piece of reed

without the side slit, fit the cell into the top end so the point was only exposed, insert the sharpened plug, and insert the cage among the bees as above, and he had a perfect cell-protector. He used them for hatching-nurseries also. Now, if I am not mistaken Jewell Davis derived or received hints from me that enabled him to get up his queen-nursery; at all events, we corresponded on the subject, and he sent one of his first ones to me.

The old gentleman saved all his natural queen-cells in the above manner, and then his hive being small at the top, a very small quantity of bees would commence right, by giving them a queen or a protected queen-cell. He had his queens fertilized from those small nuclei.

Then to build them up, he would draw out bees from any populous colony, hunt up the queen and return her, sprinkle the bees well with diluted honey, shake them down in front of the nuclei, and the reinforcements would stay where he wanted them to.

Now you can readily see where I obtained my ideas of rapid and safe increase. His hives and all his appliances were primitive, but as effectual as the most approved appliances we have now, with the exception of the movable combs, honey extractor, etc. The fact is, I received my first real insight into successful box-hive bee-keeping from Mr. Wellhausen, even if I did not believe in the witches!

His method, or one of his methods, of introducing queens was to drum out a sufficient quantity of bees, deprive them of their queen, sprinkle with diluted honey, and then liberate a queen among them, either a virgin or fertile one; hive them in an empty hive, and they have been accepted every time. I do not remember ever making a failure by introducing in the above manner. You understand they have neither comb nor brood of any description. Then if sprinkled and completely gorged with sweets, there is every incentive for them to behave themselves, and they do.

By the way, the past summer I reared a fine batch of queen-cells, and made nuclei consisting of two frames of brood and the adhering bees, and inserted eight cells in the West queen-cell protector on the tenth day, and I lost five out of the eight. Too much cool metal about the cell, which caused them to perish. With the milkweed cell-protector I could have saved every one. Our nights here are quite cool. I have lost some, where I introduced them in the center of strong colonies early in the season. I do not say that I lost them by bad handling of the cells, for I do know how to handle queen-cells.

Bees did remarkably well in the prairie country in Wisconsin in an early day, but before I left all was under cultivation, and the white clover had not gotten into the pastured land sufficiently to produce much, and the golden-rods were killed out pretty effectually, so that bee-keeping was not so profitable except in the vicinity of timber, and especially where the linden was abundant.

About the time I had tried Mr. Wellhausen's methods pretty effectually, I searched the book-stores, both at Fond du Lac and Milwaukee, for bee-literature, and found "Quincy on Bee-Keeping," and that was quite a help. Soon after a Langstroth agent began selling the Langstroth hive and rights, and that disgusted me pretty effectually. Don't fly in a passion, and I will tell you the reason why. He introduced a 7-inch deep, 10-frame hive, and never gave any instructions about cellar-wintering, and the consequence was every colony put into them perished in wintering, and any person of common sense (as I said) ought to know better. The frame was but a trifle over 6 inches in depth.

When the agent came around to me and began to "expatiate" on the advantage of his hive, I gave him a grand blowing up, and plainly told him that bees could not winter in such a shallow hive, and gave my reasons why. I informed him that the principle was grand, but that he was bumbling people out of their money and their bees.

Orange Co., Calif.



Use of the "Divider" in Producing Honey.

BY S. T. PETTIT.

Believing it might be interesting to the readers of the American Bee Journal to know of the success the past season of my system of taking comb honey, I send a brief account.

The fact is, the gratifying success attending the new way was simply a marvel to myself. My bees were very strong—they were all that could be desired, with few exceptions, when the flow began; and of course I neglected nothing, everything was done just at the right time and in the right way, according to my judgment, and the work went on nobly, the filling up and finishing satisfactory indeed, the quality and finishing

up of the sections so far ahead of anything I could ever get under the old way.

It would be gratifying to me, and profitable to all who try my way, if they would follow instructions carefully. This year I used a large number of dividers with $\frac{3}{8}$ -inch holes, and they worked all right; no bulging of the combs and no burr-combs. The bees can just walk right through those $\frac{3}{8}$ -inch holes leisurely and easily, and that is the way they move when building combs. Of course, the holes must be pretty close together—there are 122 in each divider, as I make them now.

Here is a point I must call attention to, that is, if it be necessary to use followers to fill up space, there must be no passage-ways for the bees outside the followers; the bees must be kept, and obliged to do their coming, right against the divider.

I have thought a good deal about it, and can hardly tell why I would like to have the space outside the divider, that is, the space between the divider and super wall or follower, if one be used a little more than a quarter inch. Very likely you will say, "Let well enough alone." Good advice, I agree, but for all that I shall test the matter pretty largely, all being well, the next season, with a five-sixteenth inch space.

Ontario, Canada.



Leveling Down Unfinished Sections.

We received this question some time ago, which we referred to the bee-keepers named for reply, and their answers follow:

MR. EDITOR:—Two or three of the men replying on page 734 (1897) say they would use unfinished sections with cells full depth, providing they are clean and white, but the others all want them leveled down. According to some there is great advantage in using such sections, the bees being thereby saved time and labor. But I don't want to spoil my sections by using too deep cells. On the other hand, I don't want to lose any advantage by cutting down more than is necessary. Will you kindly ask Messrs. Doolittle and Larrabee to tell us why they would cut the cells down to $\frac{1}{2}$ inch in depth, providing they are white and clean?

It would also help decide what to do if Messrs. Brown, Dibbern, Demaree and McEvoy would tell us why it is necessary to have the cells less than $\frac{1}{2}$ inch in depth.

LEARNER.

MR. M'EVY'S ANSWER.

I get a finer quality of honey, and more fancy finished sections.

WM. M'EVY.

Ontario, Canada.

MR. BROWN'S ANSWER.

In reply to "Learner's" inquiry for more light on Query No. 63, I would say that my experience with cells full depth, or deeper than half inch, gives a somewhat tougher comb of honey; that is, when said combs are kept over from one season to another before being filled. Also, in my limited experience it has seemed that the honey stored in sections having full-depth cells was not as thick and of as nice quality as the same honey in sections that the combs were reduced to $\frac{1}{4}$ to $\frac{3}{8}$ inch in depth, or those built from foundation starters. Partially drawn combs are very good for "bait sections;" that is, to get a start made in the supers; but farther than this I should only class them as of no more value than full sheets of foundation of the weight of about 8 square feet to the pound.

Volusia Co., Fla.

A. F. BROWN.

MR. DOOLITTLE'S ANSWER.

As far as I know there is only one reason for the comb-leveler, and that is to get rid of the thick edges to the cells (which generally are of a dingy-colored wax), so that the bees will lengthen out the cells with new wax the next year, thus completing the combs so that they will look equal to those built out entirely new from the foundation. Comb honey sells from looks, and if the old comb which is carried over winter is allowed to remain full-depth cells, then the bees simply fill them with honey and use the heavy rim of old wax to cap the cells with, thus giving the honey a dingy or inferior look. The leveler is used to remedy this, and the less comb that is melted away, only that we may accomplish our purpose, the better. As I use sections whose combs are only $1\frac{1}{2}$ thick, it is necessary to level them down to about one inch to accomplish what I wish. If I used 2-inch sections then I should leave the combs after leveling about $1\frac{1}{2}$ inches. I think this will make the matter plain to "Learner."

G. M. DOOLITTLE.

Onondaga Co., N. Y.

MR. LARRABEE'S ANSWER.

I have never had any very great experience with leveled-down combs, but have had quite an experience with unfinished sections, and I find those that are about an inch in thickness the most desirable.

The thickness of the comb in a 1 $\frac{1}{4}$ -inch section with separators (which I always use) is about 1 $\frac{3}{4}$ inches. If the combs are leveled down to one inch, the bees are obliged to thicken the combs $\frac{3}{4}$ of an inch, or lengthen out the cells 3\16 on each side; this is enough to cause white wax to be put on the ends of the cells and also cap white. If the combs are soiled in any way the stain will be covered up by the white caps.

I do not think it necessary to cut the cells down any more than just enough to cause the bees to lengthen them a little. If they are cut down more, in my opinion it simply makes unnecessary work for the bees to draw them out again.

If the cells are left full depth after extracting, they will not be cap as smooth nor as white as they would if cut down a little.

I think this explains why I said the combs should be cut down to about one inch.

W. G. LARRABEE.

Addison Co., Vt.

MR. DIBBERN'S ANSWER.

Years ago I always used unfinished sections from one year to another, but invariably in handling over the finished sections afterwards I could pick out all the sections having contained unfinished comb, and they were always unsatisfactory. I tried extracting all the honey from such sections, and having the bees clean them up, but the result when again completed by the bees was much the same. The combs would be rough, unsightly, and many combs would bulge off the capping, showing that the honey was souring.

At one time, in my desperation, I advised bee-keepers to extract the honey from all unfinished sections, cut out and melt up the comb, and make kindling wood of the sections. This policy, however, while overcoming my objections, looked too much like a wasteful proceeding, and then, too, these sections were so nice for "baits."

Well, finally, I adopted the policy of destroying all sections and combs that were much soiled by propolis, and cleaning up new ones containing white comb, and cutting down the cells with a thin, sharp knife, to about $\frac{3}{4}$ inch of the base. This worked very well, and the bees built readily in them, and the finished comb was nice and smooth, and no tendency to the honey souring appeared. This convinced me that it was in the depth of the cells where the trouble lay.

When Mr. Taylor brought out his comb-leveler I at once adopted it as a much handier and neater operation, and it has proven entirely satisfactory.

C. H. DIBBERN.

Rock Island Co., Ill.

MR. DEMAREE'S ANSWER.

The letter of "Learner," relating to the use of sections that have been brought over from the preceding year gives the writer the opportunity to answer the question referred to by "Learner" more fully than could be crowded into the limited space assigned to the "Question-Box" of the American Bee Journal.

In the first place, I use all fairly-preserved sections of the preceding year as a matter of economy. If such sections have been nicely kept over the winter, and properly managed, the quality of the honey will not disappoint the apiarist. Let it be remembered that climatic causes—state of the weather—during the time the honey is being stored by the bees in drawn-out, or partly-drawn combs, has much, if not everything, to do with the quality of the finished sections. If the state of the weather is in every way favorable—in my locality—fully drawn combs will give first-class honey. But the uncertainty of the condition of the atmosphere in the general way makes it safer to level down the combs with a hot plate, and take no risk.

Some may ask why it is that good, dense honey is taken with the extractor from fully drawn combs. We have only to answer that the conditions are decidedly not the same. In a set of extracting-combs the bees instinctively spread out the honey in the (extracting) combs, and thereby aid in the evaporation of the excess of water in the nectar; while in the section-cases the work is more concentrated, and the drawn-out combs are sometimes filled and sealed before the nectar is thoroughly seasoned. Before I began to thin down the combs, I sometimes in the same season had first-class honey and a poor quality of honey in full-depth combs—notwithstanding only a week or two intervened between the storing of the grades. The conditions of the weather made the difference in the quality of the honey.

It is a fact worthy of notice here, that I have had the quality of honey injured by being stored too profusely in full-sized Langstroth frames when the weather was unpropitious.

When you apply the uncapping-knife to a sealed comb, if the surface of the honey in the cells lies smooth and placid, all is well; but if sparkling, little, beadlike bubbles lie on the surface of the uncapped honey, you had better keep that honey to itself, as slight fermentation is present.

Every well-informed apiarist ought to know his environments best, and shape his course accordingly.

After testing the matter, and finding that in some seasons I can get a good quality of honey by using the brought-out sections just as the bees left them the year before, while in other seasons the quality of the honey is injured by slight fermentation, which produces pressure against the cappings and gives the water color, I now prefer the extra work to avoid all danger of loss, by thinning down the combs to $\frac{3}{4}$ or $\frac{1}{2}$ inch.

Shelby Co., Ky.

G. W. DEMAREE.



Various Things and a Report for 1897.

BY L. M. WILLIS.

Fifty-two copies of the "Old Reliable" are worth the best dollar made, to any one interested in the pleasing pursuit of sweetness and health-giving products. No, this isn't "taffy," Mr. Editor, but just a plain statement of facts, which, if necessary, I can substantiate. I have been so absorbed of late in the writings of those so much better qualified than myself to tell of their honied experiences, that I came very near forgetting to pay for those droppings of wisdom and information, which have been, and will always be, of interest to me. For altho I have sold out and intend to quit the keeping of bees in this locality, it doesn't matter, I shall want the paper just the same; and were I to take up millinery as a means of livelihood, if only for the pleasure of keeping in touch with the generous hearted and indefatigable old liners and promising recruits who so ably assist you in doing a noble work. And if perchance I should find myself transplanted to the peach orchards of Michigan, or among the orange groves of California, you may be assured of my kindest regard for you and them.

Our honey crop here was cut short by too much rain in the early part of the summer, for altho we had an abundance of clover blossoms, very little white honey was stored in the surplus boxes, and for nearly three weeks the sections were neglected almost entirely after being about half filled. Later we were favored with a flow of yellow honey with which the bees filled and capped the sections; and while this made us feel a little "down in the mouth," we were obliged to admit that it was an improvement upon the previous state of affairs.

Basswood was cut off by a late frost. My surplus amounted to about 1,700 pounds from 31 colonies, spring count, and increased to 50. My best colony filled six 24-pound supers, and eight Langstroth frames above the main hive. Of course they did not swarm.

And now I've a nut for that genial gentleman, Mr. C. P. Dadant, to crack for us. The colony just referred to is one of the first I bought eight years ago. It is in an 8-frame hive. The frames are eight inches in depth, and 17 $\frac{1}{2}$ inches long. The hive contains but seven frames with V-top-bars. This colony has always carried off the honors in honey-producing; some seasons they have cast a swarm, but only one. These swarms do well, but not much better than others I had. The bees are 3-banded, and the most docile of any I had in the yard. The bottom of the hive they are in is nailed fast, so it can only be ventilated by raising the cover. Now, is it the bees or the hive?

I think the past summer was the banner summer for cross bees in this section. I never saw them so utterly depraved before.

Taking my information from careful inquiry, I can report a falling off of about 50 per cent. in the honey crop from that obtained last year, and the most of this is second and third grade goods, tho there is a decided improvement in the manner of preparing it for market.

I was exceedingly pleased with Dr. Miller's report of his grand crop of honey, and it's all right, too; he deserves it, for the Doctor is a real nice man, even if he will tell people that he "don't know" the answer to their questions—when he doesn't. And then just think of all that sugar he fed his bees a couple of years ago for winter stores! His bees hadn't forgotten that.

Clark Co., Wis.

[Mr. Willis desired very much that the above article appear before Jan. 1, but that was quite impossible, we regret to say. We have quite a good deal of valuable correspondence that has had to wait its turn.—EDITOR.]

QUESTIONS AND ANSWERS

CONDUCTED BY

DR. C. C. MILLER, MARENGO, ILL.

[Questions may be mailed to the Bee Journal, or to Dr. Miller direct.]

Placing Bees Near Line Fence.

How near to the public highway, and how near to another boundary line fence, by the laws of Illinois, can bees be kept? Can one's own bees be followed and hived on another's land?

SUBSCRIBER.

ANSWER.—By referring to the American Bee Journal for Dec. 23, 1897, page 810, you will find an answer to the same questions.

Ants in Hives.

My bees were troubled with ants last summer. They got in under the super between the super and the hive.

WISCONSIN.

ANSWER.—As a rule, ants in the North are not likely to do any material damage. Perhaps their chief object is to secure the heat of the hive for their nests. Bees will not suffer them in the hive, and the easiest way to be rid of them is to have no places to shelter them where a bee cannot also enter.

Wintering in a Bee-House.

Last winter I lost 51 per cent. of my bees. This winter I made a bee-house by digging 3½ feet into the ground and walling it up 4½ feet, and covered it with straw and dirt. I keep some potatoes in it. It does not freeze. It has double doors, and the temperature I keep at 40°. I put the bees in on 2x6 inch scantling edgewise. I have 40 colonies in it, and 9 out-doors in chaff hives. Ought I to take off the bottoms of the hives, or the tops, or both? I put them in about four weeks ago. Do you think my bees are all right?

IOWA.

ANSWER.—It seems that your bees ought to be pretty well off. Possibly 40° is not so well as 45°, but that's not certain, as your thermometer may mark low. The true test is the quietness of the bees. That point of temperature that will come the nearest to making a dead stillness is the best. If you think it would be better to have it warmer, that can be accomplished by banking up around the walls above ground with earth or straw.

If the tops of the hives are close, and the entrance at the bottom not more than 12x½, you will do well to give more ventilation. The easiest will probably be to have the bottom entirely open and leave the top closed.

Eight Questions with Replies.

1. Should I look inside of my hives to see how the bees are getting along in midwinter? Or should I leave them until spring and take the chances?

2. I have one hive of bees that is without any honey. I gave them sugar syrup. Is there any danger of it drying up so they cannot eat it?

3. Is there any danger of the bees smothering to death if I make the hive top air-tight, with a ¾x2 inch entrance at the bottom?

4. Will thin foundation do for brood-frames when you have it on hand?

5. Will stiff paper do for separators?

6. Are separators necessary when you use starters or full sheets of foundation?

7. Do bee-keepers use separators when using large frames for extracted honey?

8. Will the bees work as well with the entrance at the side of the frames?

VIRGINIA.

ANSWERS.—1. Probably they'll do better if you let them alone.

2. You probably mean the syrup was fed in the fall. Generally there is no trouble about its granulating in the win-

ter, and yet some cases have been reported where it turned back to sugar in the combs, even after tartaric acid had been used to prevent granulation. But if it was fed early, and not too thick, you hardly need expect any trouble.

3. Yes, there's considerable danger. Better raise the whole hive at the front at least a quarter of an inch, putting a block under each front corner, and then keep a sharp lookout that the entrance doesn't become clogged with dead bees.

4. Not very well. It will stretch and sag too much. By wiring close enough you might make it do.

5. Hardly. Bees would tear it down. Even a very thin wood separator will be gnawed more or less.

6. I fill my sections full of foundation, and it would be hard to hire me to do without separators. If you don't care to ship the honey, then it doesn't matter so much. The sections of honey will eat all right on your own table, if you use no separators.

7. Very few do so, and probably none.

8. Probably there is little difference. In Germany it is quite common to have the entrance at the side of the frames, which is called "the warm system," while the opposite or cold system is mostly used in this country.

One or Two Glasses in a Solar Wax-Extractor.

In making a solar wax-extractor is it better to use two glasses with a space between, in the cover, instead of one glass?

MONTANA.

ANSWER.—Only one glass is used. It is doubtful if a second glass would be any improvement.

A Question About Bee-Stings.

When a bee stings a human being severely, its sting is torn from it, and remains in the flesh of the person stung. Now, when one bee stings another, why is not its sting also torn from it?

MASS.

ANSWER.—I wouldn't like to speak with too much positiveness on this question, but I think usually when one bee stings another the sting is thrust into one of the breathing holes from which it can be withdrawn without being torn from its owner. Occasionally, however, the sting enters one of the joints, and then the sting remains fast as when a person is stung. I think I have in more than one instance seen a bee with a sting sticking in it, the sting having been torn from its owner.

Out-Apiaries, Bee-Houses, Etc.

1. If out-Apiaries are kept, how far should they be from the home-Apiary?

2. How many colonies do you think likely to return the best results in a single Apiary in Northern Illinois?

3. If colonies are kept at home in winter when should they be removed to the out-Apiary in the spring, and when returned in the fall?

4. Do you think it would be practicable to keep the colonies of an out-Apiary in a bee-house and winter them in it?

5. Those who have reported on the bee-house, have noted bad results from the cool shade on the west side in the forenoon and the east side in the afternoon. Do you think it would be practicable to make a long, narrow house with all the hives facing south?

6. Could 50 or 60 colonies be kept in such a house without confusion, if it were painted in various colors and otherwise marked?

"CHUCKLEHEAD."

ANSWERS.—1. If we accept that bees work to advantage as far as 1½ or 2 miles from home, then an out-Apiary should be at least three miles from the home Apiary.

2. That's one of the very, very hard questions. I've been trying to get all the light possible upon it for years, and I confess I'm very much in the dark yet, with no brilliant prospect of ever seeing a great light in that direction. One year, where Jones lives, 30 colonies will overstock the locality, while in Smith's locality 150 colonies will not crowd each other. The next year the conditions may be exactly reversed, and the year following each place will be alike overstocked with 50. There being no sort of regularity about it, how are you going to establish any rule? There seems to be a more or less general idea that 100 colonies in an Apiary cannot be far out of the way, but likely one reason for that is that 100 is a round number. On the whole I've rather settled down to the opinion

that I don't want to start the season with more than 80 colonies in each apiary in northern Illinois. Six hundred colonies have been kept in one apiary in California all right, but it may yet be an open question whether in a series of 10 years 300 colonies might not give better results than 600 in that same place.

3. After being taken out of winter quarters they can't be moved any too soon to the locality they are to occupy for the season. As a rule, very early pasturage is none too plenty, and by moving part of your bees you are practically increasing the pasturage both of the ones moved and of the ones left at home. The later they are brought home in the fall the better, *provided* they have a good flight after moving and before putting in the cellar. Perhaps the safe thing is to haul them home not later than the middle of October. After that time there is little chance for gathering, and if left much later they may lose their chance for a flight. Still, most years they're safe for a flight as much as a month later.

4. Some report success at it.

5. Certainly, only it would cost more. But some report just as good success with hives facing some other direction.

6. Probably there need be little trouble in that direction, but I'd put more confidence in some other things than color, altho I think color helps. When you decide you will make something of the kind, ask further about it, and I'll be glad to give what help I can toward having colonies mark the right places.

Drones from Queen and Laying Worker.

Are drones reared from drone-eggs laid by a queen in drone-cells the same size as drones from eggs laid by a laying worker in worker-cells?
IOWA.

ANSWER.—A drone reared in a work-cell is smaller than one reared in a drone-cell, no matter whether the egg is laid by a worker or a queen. The reason seems to be that there is not room enough for a drone to grow to his full size in so small a cradle.

Sweet Clover—Sowing and Growing It.

Would it be best to sow sweet clover along with oats in the spring, or wait until the oats are harvested? How much seed to the acre? Will it grow from the root like other clover, or will it kill it to cut it for hay?
IOWA.

ANSWER.—Sow in spring, using rather less seed than you would of red clover. Better cover the seed deep, and let the soil be well packed. If you sow shallow, and the ground is loose, it may heave in the winter and every plant be killed. Remember it lives over only one winter, not blooming till the second year, after which it dies root and branch. You are not likely to hurt it by cutting first year, but some report that they have killed it the second year by cutting too low and then having a dry spell follow. Of course, cutting it late the second year can make no difference, for it will die the second winter anyhow.

Higher or Lower Elevation for an Apiary.

Does an apiary located on quite an elevation have as good a chance to secure a crop of honey as one that is located on rather low ground, with nearly all the pasturage on higher ground than the apiary? Mine is located upon quite a high hill, and nearly all the nectar has to be carried uphill, some of it for two or three miles. It seems to me that I have to pay more attention to keeping up the strength of my colonies to get the same amount of honey that I would get on lower ground, as they seem to wear out faster. Would it be a good plan to remove them to lower ground? I get as much honey per colony as any one in this section of the State. How much difference is there per colony with the same management between the two localities with about the same amount of forage?
MAINE.

ANSWER.—Your question is an interesting one, and in some cases an important one. Without an experimental knowledge on the subject, I should suppose that the matter of elevation must be a decided factor. Of course, comparing an elevated site with a lower one, if the pasturage is poor for a mile about the lower one, and good in the other case, it is not hard to decide that the elevated site should be the better, but no doubt your desire is to know the comparative merits of the two places, supposing the pasturage is the same. Unless there is some factor in the problem that I don't see, it is

simply a question as to the difference made by lifting the loads of nectar to a point so many feet higher. I doubt whether any definite answer can be given to your question farther than to say that there will be a difference in favor of the lower site. For I think it must be that the extra labor involved in carrying a load up a greater height must allow a bee to carry fewer loads in the course of its life.

Now there's very little satisfaction in an answer of that kind, but you see there's very little in the way of data to base a fuller answer. For nothing is said about the difference in elevation. A difference of a foot in elevation would probably make no appreciable difference in results, while a difference of half a mile might make all the difference between failure and success.

Even if exact figures were given as to difference in elevation, I don't know enough to say what difference there would be in results, and will gladly yield the floor to any one who can throw light upon the subject. Until you do know more about it, if it is at your option to choose between the two sites, why not divide your bees between the two places, and then you could have a better chance to know what was best for you? Of course it would not fully decide the question you ask, for you must remember there may be local differences that do not appear on the surface, making one site better or worse than the other, regardless of the matter of elevation. But the important question with you is to know which place would give you best results, and that you would have some chance of learning by keeping bees in the two places at the same time.

After you've considered all other points, don't forget that as you already get as much honey as others in your section, it may not be wise to be in too much of a hurry as to making a change.

Why Do Absconding Swarms Fly West?

In my locality absconding swarms nearly always go west. It is a very rare thing to see them do otherwise. I wish to know why they do so.
W. VA.

ANSWER.—I don't know why it is, unless it results from the persistent repetition of Horace Greeley's advice. Possibly timber to the west of you may be nearer or more suitable. And yet it seems to me that others have reported that swarms almost invariably went west where there seemed no reason for it in the surroundings. I give it up, and leave the question open for any one who has the right answer.

Alfalfa—How to Grow It?

I see much said about alfalfa clover as a bee-plant. When and how should it be sown? Should it be sown with some other grain or grass? How much seed to the acre should be sown?
TENNESSEE.

ANSWER.—In its favorite haunts in the West, alfalfa is one of the finest honey-plants, but in other places, even if success is obtained in getting it to grow, I don't remember seeing any reports that bees paid much attention to it. So it will be well for you to attempt it on only a small scale until you see whether it will be worth while. Give it the same treatment as to sowing that is successful with red clover in your vicinity. The hardest part is to get it through the first year.



Korean Bee-Keepers, says L. Lionville in *L'Apiculteur*, call the queen the "king," or rather the "general," and the drones "females" or else "soldiers." They don't harvest the honey till the last of November, as they say it won't keep.

Hornets and Wasps.—W. F. Reid, in the *British Bee Journal*, says he has been making a careful study of hornets, and has come to the conclusion that instead of being an enemy to bee-keepers they should be considered as a friend and cherished accordingly. Several hundred hornets were caught and their prey examined, and in only a single case was a bee found to be the victim. Toward the close of the season at

least 80 per cent. of their victims were wasps which are generally considered in England as deadly foes of bees. And now comes "The Bee-Master" to say a good word for the wasps. It says if people only knew the benefit wasps are, they would never kill one; that a good wasp-year is a good honey-year, and that wasps do more than bees to help the fruit crop.

The Plain Section.—says F. A. Gemmill in *Gleanings*, needs very careful handling on the part of the retailer, so as not to stick his clumsy fingers into the surface of the comb when removing sections from the shipping-crate, causing them to bleed, etc.

The French Section.—While there is some talk in this country of a section higher than $4\frac{1}{4}$ inches, *Revue Internationale* mentions the "French section" advocated by it some years ago, measuring $5\frac{1}{2} \times 4\frac{1}{2} \times 2$, and weighing when filled a little more than a pound.

Spoiling the Market.—E. T. Abbott thinks it isn't the farmer with his poor honey and low prices—rather the poor honey helps to sell the better by its contrast—but the mixer with his adulterated goods put up in attractive form, and the producer who ships to a glutted city market and then cuts the price.—*Gleanings*.

The Capacity of Brood-Chamber, says abbe J. B. Voirnot in *L'Apiculteur*, should be in a box-hive 40 liters (2,439 cu. in.), and in a frame hive 50 liters (3,049 cu. in.). Quinby, in his day, put the capacity of a box-hive at 2,000 inches. A hive with 11 Langstroth frames would be about Voirnot's standard for a movable-comb hive.

Foul Brood Finishes an Apiary in 3 Years from the time it is first introduced if left entirely to itself, according to the experience of R. C. Atkin. He tells of a well-read bee-keeper in whose apiary he lately found foul brood that had been present, he thought, for two years. He allowed his bees to swarm, and never opened a brood-chamber. A case of too little handling of bees.—*Gleanings*, page 8.

Honey-Vinegar.—Lefebvre-Duchange relates in *L'Apiculteur* that after extracting he soaked the extracted combs 24 hours in a tub of water, then upon extracting them got a dilution of honey of 6 ounces to a quart of water. One who had no other use for his time might find this a good way to make vinegar. In rare cases it might be a good plan to clean the combs in this way where not convenient to have the bees do it.

Tin Packages for Honey Safe.—Some discussion has occurred in the *British Bee Journal* as to whether tin packages would damage honey. Otto Henner, President of the Society of Analysts, examined a large variety of articles put up in tin. Very acid fruits corrode the tin; in animal foods (sardines, salmon, etc.) only a trace of tin was to be found, and only the slightest trace in honey. He considers it very foolish to arouse any fears in this regard.

Rearing Queens.—"If the 'South African Deacon,' as Mr. Edwin Bevin calls him, will fill a 10-frame hive with combs of brood, place it over a prosperous colony with an excluder between, and 11 days later remove all cells in the upper story and shake all bees from the bottom body into it, placing the latter with queen elsewhere, he will have bees in the right condition to accept, start or build cells, and the brood or prepared cups should be given as soon as the bees show the queenless sign."—W. H. Pridgen, in *Southland Queen*.

Three Side-Cut Sections.—In the *British Bee Journal* there seems to be much discussion with regard to sections split in two on top and two sides, some controversy as to the invention, and mention of a patent. The section is folded and locked, then pulled apart sufficiently to admit the foundation, after which the parts are tightly prest together, and the foundation holds them together. Simmins' plan is to have a sheet of foundation long enough to fill three or four sections, and after the sections are put together the foundation is cut apart. Sladen's V-slit section has, as its name implies, a V groove running lengthwise, cutting nearly or quite through the section, the V groove being the same as the familiar one cut crosswise in the one-piece sections. These sections have been used more or less for more than ten years in England, but have not seemed to waken very general interest until lately. Possibly one reason for the interest in this matter in England,

and the lack of interest in this country, is the fact that little is known comparatively in England of the different machines, Parker, Daisy, etc., for putting foundation in sections. In that excellent work by Mr. Cowan, the "British Bee-Keepers' Guide-Book," even as late as the 1896 edition, no mention is made of any of these foundation fasteners. An Englishman would probably ask whether Americans knew nothing of other ways of fastening foundation that they should use the machines they do, and an American would wonder how Englishmen can putter as they do and not adopt a heated-plane fastener.

Temperature for Brood-Rearing.—In a normal colony, with brood-rearing going on, Doolittle says 92° is the lowest he found in the brood-nest when the air was down to freezing outside. When the mercury stood at 90° in the shade, the brood-nest was 94° , and it never went above 98° in the brood-nest, even when it was a little higher than that outside. So he concludes the bees have the ability to raise or lower the temperature, keeping it from 92° to 98° . And it seems they have the ability to raise Doolittle's temperature tremendously, for after working with bees nearly 30 years, as he relates in *American Bee Keeper*, his bee-fever is now at white heat.

The Winter Consumption of two colonies in a twin hive with partitions, according to Devauchelle, in *L'Apiculteur*, is $6\frac{1}{2}$ to 7 kilograms (about 14 to 15 pounds), while a single colony consumes 5 to 6 kilograms (11 to 13 pounds). That agrees with the generally received opinion that a strong colony consumes less according to its weight than a weak one. According to Devauchelle's figures, a colony twice as large as one that consumes 12 pounds, instead of consuming 100 per cent. more, will consume only about 23 per cent. more. Hence economy of stores in uniting two weak colonies in the fall rather than to wait till spring.

Bright Yellow Beeswax is secured by the following method, says Edward Ochsner in the *Review*:

"The material for such wax comes only from white comb, cappings and burr-combs, and these are always kept separate from the old, dark brood-combs. To render the wax I heat a boiler half full of water, then put in the cappings and burr-combs until the boiler is $\frac{3}{4}$ full, and keep a slow fire until all the wax is dissolved, when the boiler is set off. Just before the wax is too cool it is dipped off, care being taken to get no water, and strained through cheese-cloth into tin or earthen vessels that have been moistened with honey or water."

Prevention of Swarming.—G. M. Doolittle gives in *Gleanings* a plan that he thinks well worthy of trial, as in a single season's experience the plan has proved entirely successful with him. First, as many queen-cages as necessary, $4 \times \frac{1}{2} \times \frac{1}{2}$ made of wire-cloth with a wooden plug $\frac{1}{4}$ inch long in each end, tacking fast the plug at one end. When swarming-time comes, say a week or ten days before honey harvest, cage the queen and lay the cage on top of a bottom-bar four or five inches from the entrance, cutting away enough comb, if necessary, for that purpose. Wait 9, 10, or 11 days, at your convenience, then make sure to destroy all queen-cells, remove the stopper from the queen-cage and replace it with a stopper two inches long having a $\frac{3}{4}$ hole bored lengthwise filled with fresh queen-candy. That's all you do. The bees do the rest, and will not swarm unless the honey-flow continues more than four weeks.

The Plain Section, which is the better name (certainly the plainer name) for the no-bee-way section, is one of the things L. A. Aspinwall has been working with for some time, as he relates in the *Review*. Instead of the fence separator, he uses a tin separator with openings cut so as to allow ready passage from one section to another throughout the entire length of the upright pieces or sides of the sections.

He uses a super of peculiar construction, a sort of knock-down affair, that is held together by rods or bolts with screw and nut, allowing expansion, so that 20 sections may be used in a super, and as easily 24, 28, 32 or 36.

The plain sections, he claims, cost about 20 per cent. less than the old style. They look better, and will bring a better price, especially as the consumer buys $1/9$ less wood in the plain than in the old-style section. A saving of 20 per cent. is made in shipping-cases. The plain section admits of being cleaned by machinery.

Mr. Aspinwall is especially enthusiastic as to the beauty of the finish product as secured with his supers and separators, his honey bringing the highest price in spite of the ruinous prices at which honey is sold right beside it by farmer bee-keepers.

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United States Bee-Keepers' Union.

Organized to advance the pursuit of Apiculture; to promote the interests of bee-keepers; to protect its members; to prevent the adulteration of honey; and to prosecute the dishonest honey-commission men.

MEMBERSHIP FEE—\$1.00 PER ANNUM.

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EUGENE SECOR, Forest City, Iowa.

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EDITORIAL COMMENTS

The Langstroth Monument Fund.—It has been a long time since we have had much to say in regard to this undertaking in honor of the lamented Langstroth. But Editor E. R. Root (who has had some correspondence with Mrs. Anna L. Cowan, the daughter of Father Langstroth) suggests that bee-keepers at once raise the fund to at least \$75. He reports that in all, so far, \$60 has been contributed. If we mistake not, nearly half of that amount came from bee-keepers in foreign lands. Now we think that at least a total of \$100 should be raised, and that it can be done before March 1, if each bee-keeper at all interested will send in his contribution during February. Why not do it?

Send to us, if you prefer, what you feel like giving, and we will report it in these columns; also on March 1 we will forward all in our hands to Editor Root, who will put it in with what he has received, and forward all to Mrs. Cowan, to be used in the purchase and erection of a monument which shall serve to mark the resting place of the body of Rev. L. L. Langstroth—the bee-keepers' loving friend and greatest benefactor.

Now let the contributions come in lively from this time until March 1. Don't delay because you can't give largely. Give just what you feel you can.

Trans-Mississippi Exposition Notes.—On the first page of this number we show a fine view of the Trans-Mississippi and International Exposition as it will ap-

pear when it opens, June 1, 1898. It is through the kindness of the Department of Publicity and Promotion that we have the illustration to show to our readers. Mr. Edward Rosewater, editor of the Omaha Bee, is the chief of that department.

The Bureau of Bee-Industries is in the good hands of Hon. E. Whitcomb, of Friend, Nebr.—the tireless worker in behalf of American beedom. He suggests that bee-keepers and supply dealers who contemplate taking space in his department should not forget the advertising facilities offered them through making displays in that section of the great Exposition. In addition to the space accorded exhibitors, the Exposition will furnish each exhibitor ordinary light, ordinary guards, 20 words each in 100,000 official catalogs free of charge, and all expense pertaining to the jury of awards. These items alone will cover every cent received by the management for space received by exhibitors.

Rev. Emerson T. Abbott, of Missouri, a State Commissioner, has been appointed on the committee of his commission on horticulture, etc. We may reasonably expect some good displays from that State.

Mr. R. C. Aikin, President, and Secretary F. Rauchfuss, of the Colorado State Bee-Keepers' Association, are making a determined effort to have that State properly represented in the Bureau of Bee-Industries.

Mr. Pollock, Secretary of the Wisconsin Commission, visited Omaha the second week of this month, so we will likely hear from Wisconsin in the near future.

Wisconsin Convention.—The 14th annual meeting of the Wisconsin State Bee-Keepers' Association will be held Feb. 2 and 3, 1898, in the Dairy and Food Rooms of the Capitol Building at Madison. Many prominent bee-keepers have promised to be present, and also with a grand display of bee-supplies. Important subjects pertaining to present methods of bee-keeping and marketing of honey will be discussed; also as to what shall be done to make the Wisconsin honey display a credit to that State at the International Exposition to be held in Omaha from June 1 to Nov. 1, 1898. The State Bee-Inspector's report, and the free for all question-box with answers and discussions will pay any Wisconsin bee-keeper to attend and take part. All are invited to attend, of course. Mr. N. E. France, of Platteville, Wis., is the Secretary. Address him for further particulars if desired.

California Favors Amalgamation.—We learn that at the recent annual meeting of the California State Bee-Keepers' Association, held Jan. 10 and 11, the subject of the old and the new Bee-Keepers' Union was taken up for discussion, and the result was the passage of the following resolutions, there being 43 votes in favor, and no opposition:

Resolved, That the new Union should absorb the old.

Resolved, That the Secretary be instructed to inform the respective managers of the Unions of this action.

We think that extended comment on the foregoing is hardly necessary, as it is so evidently wise an action that it must commend itself to bee-keepers of all sections of the country. And coming from California, where is located such a large proportion of the membership of the old Union, it seems to us it can scarcely fail to have great weight in bringing about a speedy uniting of the two Unions. We trust it may, and that thereafter there may be a bending of every energy on the part of all to build up an organization that shall do even grander work than has the old Union, if that be possible.

The New Union's Amended Constitution.—In the Bee Journal for Oct. 14, 1897, page 649, we printed six amendments that were approved by the Buffalo convention, and which were submitted to a vote of the mem-

bership of the New Union in December—last month. We are informed by General Manager Secor that there were 108 votes cast on the amendments, and as the highest number of unfavorable votes cast on any one of the six amendments was only 8, all were practically carried unanimously.

That our readers may see just what the United States Bee-Keepers' Union stands for, and upon what plan it is organized, we follow this paragraph with the Constitution as amended, trusting it may now meet with such favor at the hands of bee-keepers everywhere that they will rally to its loyal support, and thus generally unite in an attempt to carry out all its objects—every one of which is in the interest of bee-keepers everywhere:

Constitution of the United States Bee-Keepers' Union.

ARTICLE I.—NAME.

This organization shall be known as the United States Bee-Keepers' Union.

ARTICLE II.—OBJECTS.

Its objects shall be to promote and protect the interests of its members; to defend them in their lawful rights; to enforce laws against the adulteration of honey; to prosecute dishonest honey commission-men; and to advance the pursuit of bee-culture in general.

ARTICLE III.—MEMBERSHIP.

SEC. 1.—Any person who is in accord with the purpose and aim of this Union, and will work in harmony with the same, may become a member by the payment of one dollar annually to the General Manager or Secretary; and said membership shall expire at the end of one year from the time of said payment, except as provided in Section 8 of Article VI of this Constitution.

ARTICLE IV.—OFFICERS.

SEC. 1.—The officers of this Union shall be a President, a Vice-President, a Secretary and a Board of Directors which shall consist of a General Manager and six Directors, whose term of office shall be for three years, or until their successors are elected and qualified, except that the term of office of the two Directors having received the smallest number of votes at the time of voting for Directors in December, 1897, shall expire Dec. 31, 1898; and the term of office of the two Directors having received the largest number of votes at the said time of voting shall expire Dec. 31, 1899; and that the term of office of the two Directors having received the largest number of votes at the said time of voting shall expire Dec. 31, 1900.

SEC. 2.—The Board of Directors shall choose their own chairman.

ARTICLE V.—ELECTION OF OFFICERS.

SEC. 1.—The President, Vice-President, and Secretary shall be elected by ballot by a majority of the members present at each annual meeting of the Union, and shall constitute the Executive Committee.

SEC. 2.—The General Manager and the Board of Directors to succeed the two whose term of office expires each year, shall be elected by ballot during the month of December of each year by a majority vote of the members voting; and the Board of Directors shall prescribe how all votes of the members shall be taken.

ARTICLE VI.—DUTIES OF OFFICERS.

SEC. 1.—*President*—It shall be the duty of the President to preside at the annual meeting of the Union; and to perform such other duties as may devolve upon the presiding officer.

SEC. 2.—*Vice-President*—In the absence of the President the Vice-President shall perform the duties of President.

SEC. 3.—*Secretary*—It shall be the duty of the Secretary to keep a record of the proceedings of the annual meeting; to receive membership fees; to furnish the General Manager with the names and postoffice address of those who become members whenever requested of him; to make a report at the annual meeting of the Union, and, whenever requested to do so by the Board of Directors, of all moneys received and paid out by him since the last annual meeting; to pay to the Treasurer of the Union all moneys left in his hands after paying the expenses of the annual meeting; and to perform such other duties as may be required of him by the Union; and he shall receive such sum for his services, not exceeding \$25, as may be granted by the Board of Directors.

SEC. 4.—*General Manager*—The General Manager shall be Secretary of the Board of Directors, and shall keep a list of the names of members with their postoffice address; receive membership fees, and be Treasurer of this Union. He shall give a bond in such amount, and with such conditions, as may be required and approved by the Board of Directors, for the faithful performance of his duties, and perform such other services as may be required of him by the Board of Directors, or by this Constitution.

SEC. 5.—At the time of sending the ballots to the members for the annual election, he shall also send to each member a list of the names of all members, and an itemized statement of all receipts and expenditures of the funds of the Union by the Board of Directors, and a report of the work done by said Board of Directors.

SEC. 6.—The Board of Directors shall pay the General Manager such sum for his services as said Board may deem proper, but not to exceed 20 per cent. of the receipts of the Union. Said Board shall meet at such time and place as it may decide upon.

SEC. 7.—*Board of Directors*—The Board of Directors shall determine what course shall be taken by the Union upon any matter presented to it for consideration, that does not conflict with this Constitution; and cause such extra, but equal, assessments to be made on each member as may become necessary, giving the reason to each member why such assessment is required; provided that not more than one assessment shall be made in any one year, and not to an amount exceeding the annual membership fee, without a majority vote of all the members of the Union.

SEC. 8.—Any member refusing, or neglecting, to pay said assessment as required by the Board of Directors shall forfeit his membership, and his right to become a member of the Union for one year after said assessment becomes due.

ARTICLE VII.—FUNDS.

SEC. 1.—The funds of this Union may be used for any purpose that the Board of Directors may consider for the interest of its members, and for the advancement of the pursuit of bee-culture.

ARTICLE VIII.—VACANCIES.

Any vacancy occurring in the Board of Directors may be filled by the Executive Committee; and any vacancy occurring in the Executive Committee shall be filled by the Board of Directors.

ARTICLE IX.—MEETINGS.

This Union shall hold annual meetings at such time and place as shall be agreed upon by the Executive Committee, who shall give at least 60 days' notice in the bee-periodicals, of the time and place of meeting.

ARTICLE X.—AMENDMENTS.

This Constitution may be amended by a majority vote of all the members, provided notice of said amendment has been given at a previous annual meeting.



MR. P. H. ELWOOD, we learn through Gleanings for Jan. 15, "lost, the day after Thanksgiving, the light of their household, a bright little boy of three years."

MR. ALEX. SCHROEDER, of Austria, Europe, writing us Jan. 3, 1898, said:

"Up to this we have had hardly any winter. I hope it will continue so all the time."

MR. THOMAS G. NEWMAN, the General Manager of the National Bee-Keepers' Union, has removed from 2096 Market street to 1429 Market St., San Francisco, Calif. His correspondents will please notice this change from 2096 to 1429. It brings his office several blocks nearer the business center of the city than before.

MR. L. KREUTZINGER, of this (Cook) county, has just engaged Mr. J. T. Hammersmark as manager of his apiaries for the coming season. Mr. Kreutzing also has an apiary in

Pasadena, Calif., with some one there to look after it. Mr. Hammersmark spent one season with E. France & Son, the great extracted honey producers of Wisconsin; and also one season with W. D. Wright, a comb honey producer in New York State. Hence Mr. H. ought to be fully able to run Mr. K.'s apiaries successfully.

Mr. Kreutzinger, when sending us the foregoing information Jan. 15, also added:

"When passing on the north side of Madison St., Chicago, east of Fifth Ave., yesterday, I found some one in front of the store piling up comb honey, and selling two sections for 15 cents. So you see your reference, on page 24, to some beekeepers around Chicago, and complaints, appear justified."

MR. W. J. CULLINAN, of Quincy, Ill., after an invalidism of years, past away last week. He was a brother-in-law of Hon. J. M. Hambaugh, of California. Mr. Cullinan left a well-appointed apiary of 40 colonies of bees. He has for years been a reader of the American Bee Journal, and frequently contributed to its columns in years gone by. Our sympathy goes out to the bereaved wife and relatives.

MR. H. C. MIDDLETON, DeKalb Co., Mo., when renewing his subscription for 1898, said:

"I am more than pleased with each year's work on the American Bee Journal. Let us ever fight adulteration to the end, and the victory will be won."

CONVENTION PROCEEDINGS

Report of the Northwestern Bee-Keepers' Convention, Held in Chicago, Nov. 10 and 11, 1897.

REPORTED BY A SPECIAL BEE JOURNAL REPORTER.

(Continued from page 38.)

FIRST DAY—AFTERNOON SESSION.

A committee, of which Mr. Stone was chairman, appointed in the forenoon, then reported on constitution. On motion the report was received and the committee discharged.

The constitution, as prepared, was then read by Secretary York, and adopted, section by section. It reads as follows:

CONSTITUTION OF NORTHWESTERN BEE-KEEPERS' ASSOCIATION.

ART. I, NAME.—This organization shall be known as the Northwestern Bee-Keepers' Association.

ART. II, OBJECTS.—Its objects shall be to promote and protect the interests of its members.

ART. III, MEMBERSHIP.—Any person interested in bees may become a member upon payment of a membership fee of 50 cents annually to the Secretary-Treasurer.

ART. IV, OFFICERS.—SEC. 1. The officers of this Association shall be a President, Vice-President, and Secretary-Treasurer, who shall form the Executive Committee. SEC. 2. All Presidents of the State associations represented shall be Honorary Vice-Presidents of this Association. SEC. 3. The term of office of all officers shall be for one year, or until their successors are elected and qualified.

ART. V, ELECTION OF OFFICERS.—SEC. 1. The election of officers shall be by ballot, at the annual meeting, and a majority of votes cast shall elect. SEC. 2. Vacancies in office shall be filled by the Executive Committee.

ART. VI, DUTIES OF OFFICERS.—The officers shall perform all such duties as usually devolve upon similar officers in other organizations. Any other questions shall be decided according to "Robert's Rules of Order."

ART. VII, PLACE AND TIME OF MEETING.—The place of meeting shall be in Chicago, at such time as shall be determined by the Executive Committee, notice of which shall be given to each member, and published in the bee-papers.

ART. VIII, AMENDMENTS.—This Constitution may be amended by a two-third vote of the membership in attendance at any annual meeting, provided that notice of such proposed

amending be mailed to the members by the Secretary not less than 30 days before the annual meeting.

Dr. C. C. Miller was then elected President of the revived Northwestern Bee-Keepers' Association; Hon. E. Whitcomb, Vice-President; and George W. York, Secretary-Treasurer.

Invitations from Omaha, to hold next year's meeting there, were then read.

CHEAPEST AND BEST WAY TO REAR QUEENS.

Mr. Rohrs—What is the cheapest and best way to rear queens?

Mr. Schrier—If a man only wants a few he would better buy them. He can get them cheaper of a specialist in queen-rearing.

Mr. Thompson—In rearing queens there is a great difference in the size of the queen-cells. I would like to know how many here produce good queens from small cells, or from the biggest they have?

Mr. Baxter—It depends upon whether he means the inside or outside. I have had some of the very best queens produced from what you would think was no cell at all, but when you come to examine the inside it was just as big as in larger looking cells. If the inside is large enough for the purpose, it is sufficient.

Pres. Miller—Another question may come in along with that: As a rule, will those cells that are large inside be larger than common outside?

Mr. Baxter—I would answer no to that.

Pres. Miller—If you are selecting cells, and you have a number in the hive, will you look for one that has a large outside, or would you consider that at all?

Mr. Stone—I always do. If it doesn't have a large outside it is possible for it to have a very small inside.

Mr. Baxter—That depends upon the way the cell is built. If the bottom of the comb projects, the result is it is very large outside. It makes a big difference where it is placed.

Mr. Thompson—The larva is hatched in the bottom of the cell proper, where it is built out, and then they build it out after the larva has hatched. How comes that? Does the larva crawl out of the cell proper, or does it stay in?

Mr. Baxter—The larva is always at the bottom of the cell, anyway.

Pres. Miller—Let me see if this is what will agree with your experience: Isn't it true that you will sometimes find in a comb a cell which hardly projects from the surface? Unless you have been careful you hardly notice it at all as a queen-cell; but out of that cell will come just as good a queen as you get from your largest cells. That sometimes happens. But that is because the bees have been forced into that, not left to their own devices.

Mr. Thompson—Do you call the bigger queen the better queen?

Pres. Miller—No, no. I would have a medium-sized queen; but as a rule the larger cells will have the better queens.

Mr. Thompson—If it is the quantity of the food that produces a good queen in a large cell, then there cannot be so much food in a small cell, and consequently they will not be so good.

A Member—I have often noticed, after a queen has hatched, that there was an abundance of royal jelly at the bottom of the cell left that was not utilized, and I think it is, no matter what size of cell it is, as long as that larva had a sufficient quantity of royal jelly to develop it. The size of the cell will not make any difference in the queen.

Mr. Wheeler—I have found this to be true, that a cell that hangs at the bottom of the comb, and hangs under, is quite apt to have a dead bee in it, for some reason or other. When I pinch it I very often find that queen dead; but I very seldom find a queen dead that is reared in a comb, imbedded—hanging down but imbedded in the comb along with other brood. They are almost always very lively and strong when they are hatching. I very often pinch them out just when they are hatching.

Pres. Miller—Will you tell us why that is, Mr. Wheeler?

Mr. Wheeler—I think that one reason is that where they extend down below the cluster they are apt to be exposed to chilly winds and such things; but where they are right in the brood and imbedded in it alongside of it—I prefer to have a cell of that kind rather than one that hangs below the frame.

Mr. Rohrs—My experience with rearing queens has been just the same. It is that from the bottom of the brood-frame we very often find dead queens, but those on top are better, and I coincide in that with Mr. Wheeler, that I think they are kept better warmed through, and a more regular temperature than at the bottom.

[Continued next week.]

GENERAL ITEMS

Bees Did Very Well.

My bees did very well the past season, having received 500 pounds from 17 colonies.
GEO. BISCHOFF.
Des Moines Co., Iowa, Dec. 24.

Bees a Failure—Prospects Not Good.

Bees have been a complete failure here the past season, and prospects are not very good for next season.
B. VOLKERING.
Polk Co., Wis., Jan. 4.

Bee Journal a Great Help.

I am more than pleased with the Bee Journal. It has been a great help to me. I would have it if the price were two dollars per year.
ROBT. NORTMAN.
Jackson Co., Wis., Dec. 18.

Bees Did Well.

Bees have done well here this year. White clover was fine. The fall crop was not so good as last year, being too dry. Bees are in good condition for wintering.
C. V. MANN.
Sangamon Co., Ill., Dec. 20.

Best Honey from Cotton-Bloom.

The honey-flow in this part of Texas was excellent. The best honey we get is from the cotton-bloom. We credit our success to the American Bee Journal.

TENA S. EDZARDS.
Lamar Co., Tex., Jan. 5.

Good for Arkansas.

I had six colonies, spring count, took off 1,000 pounds, and increased to 10 colonies. I took the prize on fine comb honey at our county fair. How is that for Arkansas, where bee-culture is in its infancy?
C. S. ROBERTS, M. D.
Johnson Co., Ark., Dec. 23.

Made a Good Record.

My bees made a good record the past season. From 19 colonies, spring count, I secured 2,400 pounds of honey, all comb but 140 pounds—in round numbers 126 pounds per colony. I increased to 42. Not bad for Cook county, is it?
G. W. STEPHENSON.
Cook Co., Ill.

A Valuable Kind of "Weed."

My report is as follows: 10 colonies, spring count, and received 500 pounds of nice white clover honey, besides increasing to 22 colonies. I can't get along without the American Bee Journal.
GEO. W. WEED.
Carroll Co., Ill.

Drouth and Frost.

I started last spring with 32 colonies, had 17 swarms, and got about 300 pounds of white clover honey, when the drouth set in and the flow stopt until fall, then I got 800 pounds of honey. I would have gotten more if the frost had not killed the smart-weed, which was in its prime at that time.
S. BURTON.
Woodford Co., Ill.

A Lady Bee-Keeper's Report.

Bees did fairly well here the past season, and went into winter quarters in good condition. From 18 colonies last spring I increased to 41, and have 450 pounds of surplus honey, and an abundance of winter stores for all. This is not a large yield of surplus for this country, but an average crop. The latter part of the summer and early fall

Only 6 cts. per Pound in 4 Can Lots or Over. Finest Alfalfa Honey! IT SELLS ON TASTING. The Honey that Suits All Who Buy It.



We can furnish **White Alfalfa** Extracted Honey, in 60-pound tin cans, on board cars in Chicago, at these prices: 1 can, in a case, 7 cents per pound; 2 cans in one case, 6½ cents; 4 cans (2 cases) or more, 6 cents. The Cash must accompany each order.

A sample of the honey will be mailed to an intending purchaser, for 8 cents, to cover postage, packing, etc. We guarantee purity.

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that there is in the State. The material is cut from patterns, by machinery, and is absolutely accurate. For Sections, the **clearest and whitest Basswood** is used, and they are polished on both sides. Nearness to Pine and Basswood forests, and possession of mills and factory equip't with best machinery, all combine to enable this firm to furnish the

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GEORGE W. YORK & CO., 118 Michigan St., CHICAGO, ILL.

were too dry for a good honey-flow, and as most of our honey-producing plants bloom at this time, the honey-flow was cut short. We never have such large yields as are reported from some parts of the country, but we seldom fail to get some surplus, and nearly always get plenty of winter stores.

I am well pleased with the Bee Journal, and I am greatly interested in the busy bees. I want to learn more of them.

Saline Co. Nebr. MRS. E. J. TROUT.

Expect to Begin in March.

If the winter and spring are favorable, we will commence business in March with 500 good, strong colonies. G. W. WEEKS. Orange Co., Calif.

Bees Nearly a Total Failure.

Bees have been as near a total failure as we ever had in this locality. The most of them stored enough to winter on, but very little surplus, and that of poor quality. We had late frosts in the spring, and in June a hail-storm. Bees stopt swarming, and took the honey in the sections below.

Dodge Co., Minn. D. E. WHITING.

Had a Fine Rain—Prospects Good.

We have just had a fine rain of about 1½ inches, with prospects of plenty more, which means a good honey crop for 1898. I wish we were like the bees in the production of honey, in that we would not have to figure on profit, but we seem slow to learn from them, that uses are the true motive in production. W. B. HUNTER. Riverside Co., Calif., Jan. 11.

Did Well the Past Season.

I have been reading the Bee Journal for some time and like it very much. I obtain much information from it, and would not like to be without it. I have not been keeping bees a great while. I have 10 colonies, and they did well the past season. I hope they may increase next year. They are all in good condition for winter.

WILLARD ALDRICH.

Allamakee Co., Iowa, Dec. 23.

Credits the Bee Journal with Half.

I commenced last spring with 10 colonies, increased to 22, and produced 873 pounds of very fine honey, 256 being comb honey in one-pound sections, which I sold to my neighbors at 10 and 12½ cents. I give the "Old Reliable" credit for at least one-half of my success. O. B. MONTFORT. Shelby Co., Ky., Dec. 27.

Report for 1897.

I commenced the spring of 1897 with about 200 colonies in one yard, increased to 280, and got about 16,000 pounds of honey, half comb and half extracted. Bees are in fine condition for another year. I weighed 25 colonies, and they averaged 58 pounds each, without tops and blankets. They are wintering finely. I could not do without the American Bee Journal. Long may it live and prosper. N. STAININGER. Cedar Co., Iowa, Jan. 10.

A Report from West Virginia.

There are no regular bee-keepers in my neighborhood, but each farmer keeps a few colonies. It seems to be too rainy here in early spring to be a good bee-country. In 1897 it was very wet till August; from this fact the honey-crop was light, as we have no fall flow. I harvested only 586 pounds of comb honey from 25 colonies, spring count, and increased to 30.

This winter is very open so far (now Dec. 21). I have packed my bees all ready for the cellar, but the weather keeps so open they are still on the summer stands. I have not as yet introduced the Italian bee; my bees are all blacks, or the old German bee, and they seem so healthy I am afraid

Sweet Clover

And Several Other Clover Seeds.

We have made arrangements so that we can furnish seed of several of the Clovers by freight or express, at the following prices, cash with order:

	5lb	10lb	25lb	50lb
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Alsike Clover.....	.70	1.25	3.00	5.75
White Clover.....	.80	1.40	3.00	5.00
Alfalfa Clover.....	.80	1.00	2.25	4.00
Crimson Clover.....	.55	.90	2.00	3.50

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Add 25 cents to your order, for cartage, if wanted by freight.

Your orders are solicited.

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BEE-KEEPERS! Let me send you my 64-page Catalog for 1898. J. M. Jenkins, Wetumpka, Ala.

Please mention Bee Journal when writing.

if I go to importing other stock I will import disease, but I am thinking of trying a few Italians next spring. My bees are very gentle. My wife and I can handle them by the day, as it were, and never get a sting, but we use a little smoke, but no gloves or veils.

I appreciate the American Bee Journal very much. I feel that I could not succeed with my bees as I do if it were not for this valuable help. IRA SHOCKEY.

Randolph Co., W. Va., Dec. 21.

Need to be Re-enthused.

The cheapness and slow sale of honey have knocked the enthusiasm out of beekeepers in this locality, but I am in the business to stay awhile at least, unless I starve out. I could not get along without the American Bee Journal, and I wish it prosperity. The honey-yield was rather below an average crop in this section the past season. A. D. WATSON.

Tioga Co., Pa.

No Winter Protection Needed.

My bees are doing well on the summer stands without any protection whatever. They have flown every day except two, when it rained all day. The currant bush will bloom in about two weeks now, which will start the bees in their spring work. Think how pleasant it is here! I have sat till bedtime, the past two or three nights, with the door wide open, and without a fire. MRS. M. M. DUNNEGAN.

San Patricio Co., Tex., Jan. 6.

A Winter Experiment.

I can't do without the American Bee Journal. I have 40 colonies put away for winter—30 colonies in the cellar, and 10 on the summer stands. I set them in a row about 6 inches from the ground, and about 6 inches apart in the row. Then I put boards on the northeast and west, 8 inches from the hives, and packed under and between, and on top solid with forest leaves, then I put good cases on top. This is an experiment with me. W. L. MITCHELL.

Whiteside Co., Ill., Jan. 10.

Report for 1897.

My report for the year 1897 is, 900 pounds of comb honey of good quality; spring count, 30 colonies, increased to 70. Honey is rather dull sale at 12½ cents per pound. I sell mostly direct to consumers. I ran out of supplies last season. I would advise my bee-keeping friends to lay in their supplies in time. "A stitch in time saves nine." I found it so last season.

I don't see how a beginner can get along without the "old reliable" American Bee Journal. "Beedom Boiled Down" is very fine.

We have had steady winter in this part of the State since Dec. 3, with five to eight inches of snow. J. E. ENYART.

Gentry Co., Mo., Dec. 25.

Moving Bees Around for Forage.

I have had only two years' experience with bees, but with fair success. Last season I commenced, in the orange groves, with 25 colonies, had to transfer nine of them, and when the orange bloom failed I moved them seven miles to the mountain white sage, and when that failed, on Aug. 15 I moved six miles to the alfalfa range, and that lasted until the last of October. I now have the bees back in the orange grove, ready for the bloom about April 15. I wound up the season with 2,800 pounds of extracted honey, and increasing to 57 colonies, with plenty of stores for the winter.

To prepare for moving I took some laths ½x1½ inches, ript in the center, cut them off about six to eight inches in length, then pushed them down between the frames at one end of the frames only, picking out different sized sticks so as to fill the space in each; and both bottom and top boxes, fastening the top and bottom boxes to



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Is a 28-page monthly bee-journal published at Higginsville, Mo.—price 50 cts. a year. With the year of 1898, we begin the eighth volume, hence it is past the experimental stage. **R. B. Leahy** and **G. M. Doolittle**, editors. Some of the features of 1898 will be a continuation of "Wayside Fragments," by **Somnambulist**. "Experience and Its Lessons," by **R. C. Alkin**. This series of articles will be reviewed by Mr. Doolittle, which is practically giving his experience with its lessons. "Experience and Its Lessons," as reviewed, will be a gold-mine for beginners and advantageous to those more advanced in bee-culture. The somnambulist articles are written in a pleasing style, as none but "Sommy" could write them. They are highly entertaining and instructive. **Dr. C. C. Miller** and other popular writers also contribute to its columns. The PROGRESSIVE is a popular journal at a popular price. Printed in the highest art, on beautiful paper. Fearless in its character, newsworthy in its contents, and artistic in its make-up. Remember the PROGRESSIVE BEE-KEEPER is but 50c. a year. The PROGRESSIVE and that "one only" book for beginners, the **Amateur Bee-Keeper**, by **Prof. J. W. Rouse**, both for 65c. A sample copy of the PROGRESSIVE for your name, and a beautiful, illustrated catalog of apian supplies for the asking. Address,

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The thought of which is the application to all life of the test question, "What would Jesus do?" has had an extraordinary sale, even during the "dull times" of summer. In the guise of a dramatic story, the book makes a powerful appeal to the public conscience in the lines in which interest is now so deeply aroused, namely, the social conditions affecting the relations of employer and employee, rich and poor, the Christian and the world, the saloon and the voter, etc. The author believes his test—"What would Jesus do?"—to be nothing less than revolutionary, and applies it with searching directness, not only to commercial and social, but also to religious life. The deep interest which the story has awakened is indicated by the thousands that have been sold, and the many voluntary testimonials, among them being the following:

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Price, in paper cover, 25 cts., postpaid; bound in cloth, 75 cts. Or, we will mail a copy of the paper-covered edition for sending us ONE NEW subscriber to the Bee Journal for a year at \$1.00, or for sending us TWO NEW subscribers we will mail you a copy of the cloth-bound edition. We will send the paper-covered book and the Bee Journal one year—both together for \$1.10; or the cloth-bound book and the Bee Journal one year—both for \$1.50. Address,

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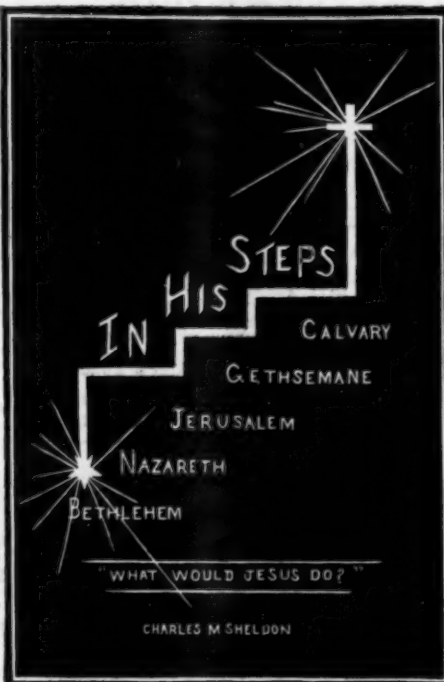
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Bee-Keeper's Guide—see page 43.

gether by drawing a wire tightly around the whole, including the bottom-board. I am satisfied with the experience of moving, and expect, if I live, to manage them so next season, provided all other conditions are favorable. I have heard of different ways of preparing bees for moving, and finding this plan very efficient, I thought it might be of use to some one else.

W. J. LINVILLE,
San Bernardino Co., Calif., Dec. 27.

Wintering Well.

My bees are wintering well so far—170 colonies in the cellar, and five on the summer stands. J. D. BLOOD. □
Linn Co., Mo., Dec 28.

A Good Year for Bees.

The past was a very good year for bees in this locality. We had a good crop of white clover honey, but the fall flow did not amount to much. The American Bee Journal is first-class. CHAS. D. HANDEL.
Carroll Co., Ill., Jan 2.

Bees in Good Condition.

I bought a colony of bees the spring of 1895, and now have 14 in apparently good condition. I have obtained much valuable information from the American Bee Journal. D. W. WILL.
Somerset Co., Pa., Jan. 1.

Prospect Unfavorable for 1898.

I would not miss the American Bee Journal for anything, as it is a great help to me. My bees did well the past year. It is very dry now, and not much of a prospect for honey for next year. B. P. SHIRK.
Kings Co., Calif., Dec. 30.

Poor Season—Some Fall Honey.

We had a poor season in 1897, with some fall honey, so that the bees went into winter quarters with ample stores. Success to the American Bee Journal. F. E. WYMAN.
Kewanee Co., Wis.

Prospects for a Better Clover Year.

Honey is a little slow sale here, but I have 100 colonies of bees now in winter quarters in splendid condition, with the prospect here of a better clover year coming than we had last.

CHAUNCEY REYNOLDS.
Sandusky Co., Ohio, Dec. 21.

Stopping Robbing.

I have read much concerning robber bees. I had a colony last spring which was weak in bees; some of the rest took to robbing, and I tried all remedies given in the Bee Journal, but to no purpose. I moved the colony away, and put another strong one in its place. They stopt robbing in one hour. SOL HARPST.
Mercer Co., Pa., Dec. 25.

Prizes the Bee Journal.

I feel much attacht to the Bee Journal, and look for it every Friday, as it comes without fail. I have two volumes bound, and the one of 1897 will be as soon as I receive all the numbers, for I think with the help of the index they are as good as the text-books, for I get the opinions of the best writers. JOHN SUTER.
Ontario Co., N. Y., Dec. 22.

A Good Word for Bee-Papers.

The bee-keepers throughout America should feel very thankful that they are so abundantly supplied with weekly and monthly publications devoted to the interest of the busy bee. I cannot think but it is stupidity on the part of a good many who pretend to keep bees, to think they

can get along without subscribing for one or more of the many good journals now offered at such very moderate prices, which would enable them to keep abreast of the times, as well as keep well-informed of the advancements of the pursuit. I have often thought that one can judge pretty well, as soon as entering a man's bee-yard, whether he is a subscriber and reader of a bee-paper or not, wherewith to keep himself posted. Not less than five different bee-periodicals come to my address every month, and I read every one of them, from cover to back; and although my "other half" says I read too much, I tell her the result of the honey harvest always decides the matter. Long live the American Bee Journal. D. W. HEISE.

Ontario, Canada.

Enjoys His Bees.

I have 34 colonies of bees altogether—26 in the country 10 miles from the city, and eight in the city. I started with three colonies in my city apiary last spring, and I increased by artificial swarming to eight. I never get hungry or tired while working for my bees. I enjoy them thoroughly; it is a pleasure. J. R. FELT.

Monroe Co., N. Y.

Making a Success with Bees.

In 1895 I had a few colonies in old box-gums. I got very little honey from them, so after I began to read the Bee Journal I thought I would try the Langstroth hives. I transferred the bees, and I started last spring with 13 colonies, increased to 23, and I have taken and sold about 1,100 pounds of comb honey. My bees are all Italians, the only ones in this part of the country, that I know of. One of my neighbors got me to send south for 13 Italian queens; I did so, and introduced them for him, and did not lose a queen. So much, Mr. Editor, for the American Bee Journal. P. McDOWELL.

Mason Co., Ky., Jan. 5.

"Started" by a Bee-Keeper.

I am a brand new bee-keeper, only a little over a year old in the business, but I like it very much so far.

I want to say "Amen" to the editor's reply to John A. Pease, of California, as I am one that was "started" in the business by a bee-keeper. I secured a little over 78 pounds of comb honey per colony, spring count, from 14 colonies, and increased to 24 the past season, which I am wintering on the summer stands. I like the American Bee Journal very much. J. S. DOWDY.

Logan Co., Ill., Dec. 27.

Fairly Good Season in 1897.

I had a fairly good season in 1897. I commenced with 65 colonies, bred up to 90, and obtained 5,200 pounds of comb honey, nearly all white, not over 400 pounds of amber and dark. I am selling this crop at a lower price than ever before—10 cents for white and 8 cents for amber and dark. I have yet about 2,500 pounds on hand, but it will all go in good time. Clover is nearly all killed in this vicinity by drouth. I have kept bees 30 years at this place, and I have never had an entire failure. I do not keep nearly as many now as I have in years past. S. PAGE.

Carroll Co., Ill., Jan. 10.

Poorest Season for Years.

I have been a constant reader of the American Bee Journal ever since I have been interested in bees, which will be 11 years in the spring, and I would not like to do without it now.

The past was the poorest year for surplus honey since I have had anything to do with bees, still not quite a total failure, as I harvested perhaps 18 or 20 pounds (mostly extracted) per colony, spring count, but some of the bee-keepers in this locality having larger apiaries had to feed some to carry the bees through the winter. I never aim



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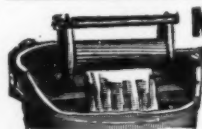
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Please mention Bee Journal when writing.

BEES FOR SALE.

About 90 Colonies of Italians. Any one wanting to start an apiary cannot do better than to call on Dr. E. Gallup, Santa Ana, Calif., and examine the Bees before purchasing elsewhere. Double sets of Combs in Langstroth-Simplifly Hives, and warranted a superior lot of Bees for business. Correspondence solicited. Dr. E. GALLUP.

SANTA ANA, Orange Co., CAL.

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In clothes washed with the
"BUSY BEE WASHER."
100 pieces in one hour and
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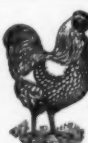
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Something entirely new, tells all about
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Send for catalog. MINNESOTA BEE-
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EXCELSIOR Incubator
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Thousands in successful
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we sell. Are not those reasonable terms?
That shows you how much faith we have
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4E4t Please mention the Bee Journal.

to keep more than 20 or 25 colonies, and try to have them good and strong.

S. C. BOOHER.

Woodbury Co., Iowa, Dec. 29.

Bees in Good Condition.

I have 81 colonies of bees in winter quarters in good condition. I had 57 last spring, increased to 81, and took 2,357 pounds of mostly comb honey, and 24 pounds of beeswax. Quite a number of swarms went away, as I lost my wife July 5, and that day I had six swarms, but paid no attention to them for the next two days. I am left with three little boys.

AUSTIN REYNOLDS.

Monroe Co., Wis., Jan. 10.

Will Test the Danzenbaker Hive.

What I mean on page 715 (1897) concerning the Danzenbaker hive being too expensive was, that to handle a colony of bees it requires two hive-bodies and two supers, which at catalog prices would cost as much as a double-wall hive, and not nearly so good for this climate. Mr. Danzenbaker's hive is a good one for a warm climate, and also for anyone that likes a single-wall hive. I did not mean to harm Mr. Danzenbaker, nor his hive. I want to try them for 1898, and of course his hive must stand on its own good qualities. I will give it a fair and impartial test.

DAVID N. RITCHEY.

Franklin Co., Ohio.

Has Kept Bees 14 Years.

This is my 14th year at bee-keeping, and I have produced \$2,500 worth of honey. I commenced the first season with six colonies, and the last with 70, and the past season I got \$425 worth of honey, besides increasing from 70 to 96 colonies.

While at the Buffalo convention I introduced myself to Messrs. York, Doolittle, Miller, Hutchinson and Root. I had become so well acquainted with them through reading their writings that I felt as if they were old friends of mine, altho I was an entire stranger to them. I am engaged in farming and peach-growing, and cannot give my bees as careful attention as I would like to do. D. L. FILES.

Monroe Co., N. Y.

Cash PAID FOR Beeswax

For all the Good, Pure Yellow Beeswax delivered to our office till further notice, we will pay 25 cents per pound, CASH. No commission. Now if you want cash, promptly, for your Beeswax, send it on at once. Impure wax not taken at any price. Address as follows, very plainly,

GEO. W. YORK & CO.

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METAL WHEELS
In all sizes and varieties, to fit any axle. They last forever. Either direct or stagger spoke. Can't break down; can't dry out; no resetting of tires. Good in dry weather as in wet weather. Send for catalog & prices. ELECTRIC WHEEL CO., QUINCY - ILLINOIS.

Please mention Bee Journal when writing.

New York.—The Ontario County, N. Y., Bee-Keepers' Association will hold its ninth annual convention at Canandaigua, N. Y., Jan. 27 and 28, 1898. An interesting program is in course of preparation. All are invited. RUTH E. TAYLOR, Sec.

Benona, N. Y.

HONEY and BEESWAX

MARKET QUOTATIONS.

Chicago, Ill., Dec. 13.—Fancy white 11 to 12c. No. 1, 10c.; fancy amber, 8 to 9c.; No. 1, 7c.; fancy dark, 7c. Extracted, white, 5 to 6c.; amber, 4 to 5c.; dark, 4c. Beeswax, 26 to 27c.

The demand for comb honey is not satisfactory, and it can be bought at even lower prices than quoted, where it is not in the hands of regular dealers. There seems to be no outside demand. Extracted without special change. Beeswax is scarce.

Milwaukee, Wis., Dec. 13.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 9 to 10c.; fancy dark, 8 to 9c. Extracted, white, 5½ to 6c.; amber, 4½ to 5c. Beeswax, 25 to 27c.

This market has been fairly sustained on honey since our last report. Values remain about the same, as there has been a very good consumptive demand, especially for extracted, while the comb honey has seemed to accumulate with increased receipts, and we feel to meet the demand even if at a reduction from quotations. There seems to be more demand from those who eat honey than in former seasons, which is a good feature of the trade which we desire to encourage. We are expecting a good trade from this forward.

Cleveland, Ohio, Dec. 15.—Fancy white, 12 to 12½c.; No. 1, 11 to 12c.; No. 1 amber, 9 to 10c. Extracted, white, 6 to 7c.; amber, 4 to 5c. Beeswax, 22 to 25c.

New York, N. Y., Dec. 22.—Fancy white 11 to 11½c.; off grades, 9 to 10c.; buckwheat and mixt, 8½ to 7c. Extracted, California white, 5 to 5½c.; light amber, 4½ to 4¾c.; white clover and basswood, 5 to 5½c.; buckwheat, 4 to 4½c.; Southern, 50c. a gallon. Beeswax is in good demand at 25 to 27c.

Our market remains quiet. Fancy grades of white comb are about cleaned up, and these would find sale on arrival at quotations. We have a large stock of buckwheat, mixt, and off grades of white, and, as the demand for these is very light, we cannot encourage further shipments for the near future. Extracted of all kinds is selling fairly well.

Minneapolis, Minn., Dec. 15.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 10c.; No. 1, 9½c.; fancy dark, 9 to 9½c.; No. 1, 8 to 9c. Extracted, white, 5 to 6c.; amber, 4 to 4½c.; dark, 4c. Beeswax, 23c.

Market holds firm at above prices. Good demand for extracted. Wax is quiet but firm at 23c.

Albany, N. Y., Dec. 13.—Fancy white, 12 to 13c.; No. 1, 11 to 12c.; fancy amber, 8 to 9c.; No. 1, 8c.; fancy dark, 8c.; No. 1, 7½ to 8c. Extracted, white, 5 to 6c.; amber, 4½ to 5c. dark, 4 to 4½c.

There is an ample stock of comb on hand and selling freely at quotations. Extracted is not plentiful and from information received there is not much in the hands of producers.

Buffalo, N. Y., Jan. 14.—Strictly fancy 1-pound comb honey is more active at mostly 10c., occasionally 11c., but all other grades are dormant and have to be cut to almost any price to move them, ranging from 8c. down to 5c. Extracted is also very dull at 4 to 6c. We cannot recommend the shipping of honey here unless it is strictly fancy 1-pound sections.

There is no selling pressure of consequence on desirable lots of water white, either comb or extracted, such being held as a rule at full quotations. Amber grades are in greater supply than the demand, and market for this class presents an easy tone. Dark qualities are in poor request, despite low asking figures. Beeswax is firm at current quotations, with very little offering, either from first or second hands.

St. Louis, Mo., Jan. 17.—We quote honey nominal, but very little selling. Demand is light. White comb, 1-lbs., 10 1-2 to 12c.; amber, 8 to 10c.; dark, 5 to 7c.; broken comb, 4 to 7c. Extracted, in cans, white, 5½ to 5 1-2c.; light amber, 4½ to 5c.; amber, 4½ to 4 1-2c.; dark, 3 1-2 to 4c. Beeswax, 25 to 25 1-2c. To sell honey in 10's above prices would probably have to be shaded a little.

Indianapolis, Ind., Jan. 15.—Fancy white, 11 to 13c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c. Extracted, white, 5 to 6c. Beeswax, 25 to 27c. Market appears to be well supplied and sales are rather slow for this time of the year. This is especially true of the amber and dark grades of comb honey. Beeswax is in good demand.

Kansas City, Mo., Jan. 20.—Fancy white, 10 to 11c.; No. 1, 10c.; amber, 9 to 10c.; dark, 8 to 9c. Extracted, white, 5½ to 6c.; amber, 5 to 5½c.; dark, 4 to 4½c. Beeswax, 20 to 22c. The market is well supplied, and demand is light.

Boston, Mass., Jan. 18.—Fancy, in cartons, 12½ to 13c.; in glass, 11 to 12c.; A No. 1, 10 to 11c.; No. 1, 9c.; No. 2, 8c.; No. 3, no sale. Beeswax, 27c.

The demand for honey is light on all grades, with a full supply. Pure beeswax is in good demand, but supply is light.

Philadelphia, Pa., Jan. 18.—Fancy white, 10c.; No. 1, 9c.; amber, 8c. Extracted, white, 5c.; amber, 4c.; dark, 3½c. Beeswax, 28c. Late arrivals of California honey have demoralized our market.

Cincinnati, Ohio, Jan. 17.—There is no change in prices, but rather a slow demand for all kinds of honey. We quote 10 to 13c. as the range of prices for best white comb honey, and 3 1-2 to 6c., for extracted, according to quality. Beeswax is in fair demand at 25 to 27c. for good to choice yellow.

Detroit, Mich., Nov. 9.—Fancy white, 11 to 12c.; No. 1, 10 to 11c.; fancy amber, 9 to 10c.; No. 1, 8 to 9c.; fancy dark, 7 to 8c. Extracted, white, 5 to 6c.; amber, 4 to 5c. Beeswax, 25 to 26c.

List of Honey and Beeswax Dealers.

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 163 South Water Street.

New York, N. Y.

HILDRETH BROS. & SEGLKEN,
120 & 122 W. Broadway.

Kansas City, Mo.

O. C. CLEMOMS & Co., 423 Walnut St.

Buffalo, N. Y.

BATTERSON & Co., 167 & 169 Scott St.

Hamilton, Ills.

CHAS. DADANT & SON.

Cleveland, Ohio.

A. B. WILLIAMS & Co., 80 & 82 Broadway.

Philadelphia, Pa.

WM. A. SELSER, 10 Vine St.
Mr. Selser handles no honey on commission

St. Louis, Mo.

WESTCOTT COM. CO., 213 Market St

Minneapolis, Minn.

S. H. HALL & Co.

Milwaukee, Wis.

A. V. BISHOP & Co.

Boston, Mass.

BLAKE, SCOTT & LEE, 57 Chatham Street.

Detroit, Mich.

M. H. HUNT, Bell Branch, Wayne Co., Mich.

Indianapolis, Ind.

WALTER S. POWDER, 162 Massachusetts Ave.

Albany, N. Y.

CHAS. McCULLOCH & Co., 380 Broadway.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central Aves.

Basswood Honey FOR SALE

We have a limited number of barrels of **very best Basswood** Extracted Honey, weighing NET about 280 lbs. which we are offering at 6 cents per lb. f. o. b. Chicago. Do you want a barrel or so of it? If so, address, with the cash,

GEORGE W. YORK & CO.,

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Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the **BEE JOURNAL**. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

A New Egg-Producer.—With many years of experience and careful study I have discovered by feeding sunflower seed to poultry it almost doubled their laying qualities. I prefer the New Mammoth Russian Sunflower seed, which is a much larger seed, and contains more egg-forming material than the common sunflower. For several years I have experimented with it on our Light Brahmas, and found that by feeding it the Brahmas laid equally as well as the Leghorns or any of the other smaller breeds. It much improves them in size if fed to chicks while growing. It can be grown much more cheaply than any other grain, with much less labor, and it will grow in any climate and on any soil. We have sold in the last few years hundreds of pounds of this New Mammoth Russian Sunflower seed, and have received hundreds of testimonials saying that it is just as we claim regarding ability to make hens lay and grow more rapidly than if fed on any other food. The



fanciers and farmers should not overlook this or anything else pertaining to their poultry, for they bring more money according to capital than anything else on the farm. If your poultry is kept up well, new blood added each year, the mites and hen-lice kept out, fowls better protected from sudden changes of weather, and more care taken as to what you feed them, you will find on a year's income your poultry is the best payer on the farm; while it is just the opposite with those farmers giving them no care whatever, letting them hunt whatever waste food they can find, and hunt their own shelter, saying it won't pay to build a poultry-house or get any new blood, as there is not enough money in poultry. Surely not under such conditions, as such fowls will not lay many eggs nor weigh much when sold at market. Take my advice and try it for just one year, keeping an account of just what you make on your poultry if proper care is given. I publish a book, price 15 cents, on the care and management of poultry in full, with many years of practical experience. Do not fail to get one of these before all are gone. Address, JOHN BAUSCHER, Jr., Box 94, Freeport, Ill., and mention the American Bee Journal when you write to me.

Queens and Queen-Rearing.

If you want to know how to have queens fertilized in upper stories while the old queen is still laying below; how you may safely introduce any queen, at any time of the year when bees can fly; all about the different races of bees; all about shipping queens, queen-cages, candy for queen-cages, etc.; all about forming nuclei, multiplying or uniting bees, or weak colonies, etc.; or, in fact, everything about the queen-business which you may want to know—send for Doolittle's "Scientific Queen-Rearing"—a book of over 170 pages, which is as interesting as a story. Here are some good offers of this book:

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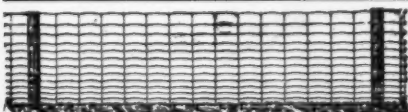
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My Foundation will SPEAK FOR ITSELF, and
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Beeswax taken in Exchange for Foun-
 dation or any other Supplies.

GUS DITTMER,

AUGUSTA, WIS.

Please mention Bee Journal when writing.

The A. I. Root Co.'s Goods Wholesale
 and Retail.

Including their discounts for Goods wanted for
 use another season. It will pay you to
 send me list of Goods wanted. **M. H. HUNT**
 Cash for Beeswax. **BELL BRANCH, MICH.**

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21st Year Dadant's Foundation. 21st Year

Why Does It Sell So Well?

Because it has always given better satisfaction than any other.
 Because **IN 21 YEARS** there have not been any complaints, but thou-
 sands of compliments.

We Guarantee Satisfaction.

What more can anybody do? **Beauty, Purity, Firmness, No Sag-
 ging. No Loss. PATENT WEED PROCESS SHEETING.**

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Please mention the Am. Bee Journal.

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OUR MOTTO—"Well Manufactured Stock! Quick Shipments!"

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 The **BASSWOOD** in this part of Wisconsin is acknowledged by all to be the
 best for making the **One-Piece Honey-Sections**—selected, young, and
 thrifty timber is used.

Write for Illustrated Catalog and Price-List FREE.

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Reduced Prices On 1896 Style Hives.

In order to make room for stock of New Goods at our Chicago Branch, we
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	5	10	20
75 No. 1 8-frame.....	\$5.00	\$9.00	\$17.00
130 No. 1E, P. W.	4.00	7.00	13.00
90 No. 1, "	5.00	9.00	17.00
60 No. 5E.....	5.00	9.00	17.00
70 No. 5.....	6.00	11.00	21.00
25 No. 6E.....	4.00	7.00	13.00
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45 No. 5E..... 10-fr.	5.50	10.00	19.00
40 No. 5.....	6.50	12.00	23.00
25 Townsend Section-Presses.....		50 cts. each.	
13 Wakeman & Crocker Section-Presses.....		\$1.00	

Note.—The 1896 No. 5 Hives include a honey-board as well as foundation start-
 ers, and the No. 5E have these omitted. The No. 6 have the D section-case
 arrangement, complete with sections and starters; and the No. 6E the same,
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Better order at once if you want any of the above list. All are bargains, for they
 are exactly as well made in every way as our later hives. Address,

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118 Michigan Street,

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